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Reid, R. J. Jr.

George Washington University ; School of Government, Washington, District of Columbia.

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ASPECTS OF INDUSTRIAL FUND OPERATION

AT NAVAL SHIPYARDS

By CDR. R. J. Reid, Jr., USN

Prepared for Dr. A. Rex Johnson
Navy Graduate Comptrollership Program
George Washington University

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PREFACE

Probably the most significant change in recent years is now in progress at the eleven naval shipyards under the management control of the Bureau of Ships; significant, in that for the first time the Shipyard Commander will have a staff assistant (Comptroller) responsible for financial guidance in matters pertaining to the operation of the shipyard, and significant, in that revised accounting methods (Navy Industrial Fund) will produce better information for establishing a sounder fiscal policy. Each of the eleven shipyards has already consolidated its fiscal functions within a Comptroller Department and three of the yards are presently operating under the Navy Industrial Fund. Eventually all yards will be under industrial fund operation.

In a recent talk to the Senior Engineer's Association of the Bureau of Ships, Rear Admiral W. D. Leggett, Jr., Chief of the Bureau of Ships, pointed out that the Bureau currently is spending almost one-third of the total Navy appropriation, other than that required for the pay of military personnel, and is employing, in the naval shipyards, almost one-half of the civilian personnel of the Navy Department.¹ In recent months this employment has approximated 124,500. Is it not reasonable that the officials of activities employing this huge force be provided the financial techniques necessary for sound management?

¹ "Chief Addresses S.E. Group", Bureau of Ships Journal, November 1953, p. 19.

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CHAPTER I

INTRODUCTION

The use of working funds within the Military Establishment had its origin in the Naval Supply Fund which was in use as early as 1878, though not officially sanctioned until 3 March 1893. At that time the Congress appropriated \$200,000 for the purchase of ordinary commercial supplies for the Naval Service - to be reimbursed from the proper appropriation whenever such supplies were issued for use.¹ These working - capital or revolving funds placed the Naval Supply Fund operation on a comparable basis with commercial enterprise in that goods bought out of capital are marketed to Navy customers who reimburse the capital, or fund, out of appropriations available to them. Essentially, the only difference between operation of the Navy Stock Fund, as it later became known, and a private merchandising business is that the former is not out to make a profit.

¹ U.S. Statutes 1169 (1893)

CHAPTER II

NATIONAL SECURITY ACT AMENDMENTS

With the objective of more effectively controlling and accounting for the cost of programs and work performed in the Department of Defense, the Congress extended the use of working-capital funds by including in Title IV of the National Security Act Amendments of 1949 an authorization for the Secretary of Defense to require the establishment of working-capital funds in the Department of Defense for the purpose of -

(1) Financing inventories of such stores, supplies, materials and equipments as he may designate; and

(2) Providing working capital for such industrial-type activities as provide common services within or among the departments and agencies of the Department of Defense, as he may designate.¹

Also included in Title IV of the National Security Act, as amended, are provisions for the establishment of a Comptroller in the Department of Defense and in each of the three military departments and for adoption of uniform budgets and accounting methods so as to reflect the cost of performance of functional programs and activities.

The stated objective of Title IV was to promote economy and efficiency in the military departments through establishment of uniform budgetary and fiscal procedures and organizations. In many respects the provisions of

¹ Public Law 216, 81st Congress, Sec. 405.

CHAPTER I

THEORY OF THE EARTH

The earth is a sphere, and its surface is divided into four parts, called continents. The continents are Asia, Europe, Africa, and America. The oceans are the Pacific, Atlantic, Indian, and Arctic. The earth is covered with water, and the water is divided into four parts, called oceans. The oceans are the Pacific, Atlantic, Indian, and Arctic. The earth is covered with land, and the land is divided into four parts, called continents. The continents are Asia, Europe, Africa, and America. The earth is covered with water, and the water is divided into four parts, called oceans. The oceans are the Pacific, Atlantic, Indian, and Arctic.

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Title IV resulted from recommendations made in 1949 by the Hoover Commission on Reorganization of the Executive Branch; in other areas they were patterned after experiments and recommendations of the Navy and the Air Force. For instance, in 1946 the Air Force adopted a comptrollership concept in its financial organization and that same year the Navy recommended a revised appropriation structure along program and performance lines. ✓

In any case, and for whomever the credit may be due, it is readily discernible from the three highlights of Title IV, i.e., Comptroller organization, performance budgeting and working - capital funds, that the Congress had set itself toward putting the Department of Defense on a business basis, insofar as possible. It might also be considered as a further step toward unification of the three services and possibly as an effort toward establishing more civilian control over funds.

Politicians, economists, the press and even the average citizen had begun to scoff at the massiveness of the budget document and even more so at how ineffective it was as a coordinated plan for the future and as a reflection of the cost of operating each activity. The performance budget concept will assist in overcoming these criticisms in that it will focus attention on the ends to be served by the various agencies rather than the dollars to be spent.

The Comptroller organization was a "natural" for inclusion as part of the program for placing more emphasis on financial management within the military departments. The comptroller concept has been utilized in both industry and government for many years. Today, the Comptroller in all large corporations occupies a position as a top executive, providing the President and Board of Directors financial data and advice essential for sound management. In the military departments the Comptroller holds a vital job in seeing to it that "this gigantic business is run efficiently." 2

² Comment of Senator R.E. Flanders (R-Vt.) at Hearing of U.S. Senate Preparedness Subcommittee No. 3, 3 November 1953.

CHAPTER III

IMPACT OF TITLE IV

The impact of the requirements of Title IV was undoubtedly felt to a lesser extent in the Department of the Navy than in the other two military departments. The Navy had previously adopted certain tools of financial management and organization which were now required by federal statute. As mentioned earlier, a revolving stock fund had been used since 1893. In addition, budget preparation, coordination and execution had been centralized in the Office of Budget and Reports since 1941; property accounting on both an item and a dollar basis had long been in use; and accounting methods which reflected the purpose of expenditures were employed. As a matter of fact, the objections voiced from some quarters to the utilization of working-capital funds, with its double entry, accrual-type accounting system, resulted from the fact that the Navy already had a proven accounting system which, with slight change, could be made to accomplish the same purpose as the new and without the additional cost of the new.

As a result of these accomplishments in financial management, the primary tasks confronting the Navy at the time of passage of Title IV were concerned largely with:

(1) Bringing together and integrating within one organization the various fiscal functions being performed at different organization locations throughout the Department; (2) implementing functions where relatively little progress had been made, such as internal auditing and the establishment of working - capital funds at industrial and commercial-type operations; and (3) placing increased emphasis on improved policies and procedures in all areas of financial management. ¹

¹ Hon. Robert B. Anderson, Secretary of the Navy, before Senate Preparedness Subcommittee No. 3, 3 November 1953.

THE STATE

THE STATE OF NEW YORK

IN SENATE,
January 1, 1891.
REPORT
OF THE
COMMISSIONER OF THE LAND OFFICE,
IN ANSWER TO A RESOLUTION PASSED BY THE SENATE,
MAY 1, 1890.
ALBANY:
J. B. LEECH, STATE PRINTER,
1891.

ALBANY: J. B. LEECH, STATE PRINTER, 1891.
The Commission on the Land Office was organized on January 1, 1890, and has since that time been engaged in a study of the land problem of this State. It has held numerous public hearings, and has received many suggestions from the people. It has also conducted extensive investigations into the various phases of the land question, and has prepared this report as a basis for legislative action.

Great strides toward accomplishment of these tasks have been made since the passage of Title IV. The Comptroller organization has been consolidated within the Office of the Secretary of the Navy and has been extended throughout the various Bureaus and to many field activities. A performance budget was adopted immediately following passage of the act. Working-capital fund financing and commercial-type accounting have been instituted in 28 Naval activities, with the conversion of 8 additional activities planned during the remainder of this fiscal year.

This summary of the impact of Title IV has been presented for two reasons: first, to show that the provisions are not just the illogical whims of "top brass" but rather are based on statutory requirements; and second, because the three main features, comptroller, performance budget and working funds, are closely related - the successful operation of each being dependent upon the others. A survey team made this statement in its report on instituting working-capital financing at the Philadelphia Naval Shipyard:

The sections of Public Law 216 pertaining to 'Working-Capital Funds,' 'Performance Budgets,' and 'Military Department Budget and Fiscal Organization - Departmental Comptrollers,' focused attention to the provisions that budgetary, fiscal, cost, statistical and progress reporting, and capital property accounting would constitute a single department in the organizational structure of a field activity when Navy Industrial Fund accounting is established.²

It is the purpose of this paper to discuss the details of only the work-capital funds, as applied to a specific type of activity - a naval shipyard.

² Navy Industrial Fund Survey Report by Joint Working Panel at Philadelphia Naval Shipyard, 17 April 1951, pp. ii-iii.

CHAPTER IV

DETAILS OF NIF OPERATION ¹

As stated earlier, the National Security Act Amendments of 1949 authorize the Secretary of Defense to require the establishment of working-capital funds within the Department for financing work of those activities providing common services. This was done on 13 July 1950 through the issuance of the Department of Defense Regulations Covering the Operation of Working-Capital Funds for Industrial - and Commercial-type Establishments (Industrial Funds).

It appears appropriate to review at this time some of the details of the operation of the Navy Industrial Fund at a naval shipyard.² Where are the working funds obtained? How is it different from appropriation accounting? Is all work chargeable to the NIF? How is overhead charged?

When it is determined that a shipyard is to be placed under the operation of NIF, a panel consisting of representatives of the Bureau of Ships and the Office of the Navy Comptroller visits the activity for a period of several weeks with the primary objectives of indoctrinating key personnel, reviewing the accounting procedures and the changes involved and determining the amount of initial working capital required. This latter requirement, initial working-capital, is determined by consideration of such factors as: amount of accrued leave to be assumed, value of inventories of materials and supplies, the amount

¹ As used hereafter, NIF refers to Navy Industrial Fund.

² Industrial Fund operation at other industrial and commercial-type activities follows the same regulations and essentially is identical with shipyard operation.

of work to be financed by the industrial fund and the billing cycle therefor.

A charter is prepared for the operation of the shipyard under NIF and is approved by the Comptroller of the Department of Defense. Among other things, this charter states the functions of the shipyard, the basis of charging for services and the amount of working - capital to be employed. It is interesting to note that here is another example of placing the activity on a commercial basis. Actually, other means could be employed to furnish this same basic authority. The issuance of a charter, however, parallels the formulation of a corporation wherein the state issues the charter.

The Navy Industrial Fund, Treasury (cash) account symbol 17X4912, is composed of balances of certain unused Naval appropriations which may be transferred to the account prior to 31 December 1954. This total account is broken down into subdivisions termed "project cash accounts," one for each establishment operated under NIF.³ The normal cash allocation from the Navy Industrial Fund to a shipyard is 15-20 million dollars. In addition to this amount, certain inventories of material on hand are capitalized in the accounts of the shipyard.

Orders for work are processed in the same manner as at present, project orders being issued to the shipyard by the agency desiring the work. This order obligates the funds of the requesting agency and permits the shipyard to undertake the work and bill the activity. However, unlike appropriation accounting, the charges incurred by the shipyard are lodged against its project cash account rather than directly to the appropriation involved. The shipyard bills each agency for whom services have been rendered either monthly in the case of long-term jobs, or at completion for jobs estimated to require less than two months.

³ Near the end of calendar year 1953, the Navy Industrial Fund consisted of \$312,000,000, of which \$146,000,000 was unallocated and held in reserve by the Treasury.

Reimbursement of the project cash account is made by the ordering agency by means of Standard Form 1080.

Unlike appropriation accounting practices previously employed, operation under the NIF requires billing for all costs paid out of the shipyard's project cash account. On orders from agencies of the U.S. Government for which payments will be made from appropriations, charges will consist of:

1. Civilian Labor employed directly on work required to fulfill the order, including provision for payment of annual, sick, holiday and other authorized leave with pay;
2. Material required for use directly on work covered by the order, except equipment of a capital nature...;
3. Special machinery or equipment acquired specifically for use on a single order, provided that charges therefor are specifically approved in the order;
4. Shop expense;
5. General overhead expense.⁴

On all other orders, for which payment is made by a cash advance rather than from appropriations, charges will consist of all costs enumerated above and, in addition, estimated costs of military pay and allowances, depreciation on Government-owned plant and equipment, Government Retirement Contribution, U.S. Employees Compensation Commission costs, and other statistical costs as may be appropriate.

While each shipyard must keep account of the cost of such items of plant property as equipment, buildings, facilities and real estate, such assets are not considered to be held within the industrial fund account. Replacements of and additions to such property and equipment are financed by appropriated funds and not by the industrial fund, except in the case of tools with a normal life of less than one year or special machinery acquired for a specific job.

⁴ Extracted from a typical naval shipyard charter. Actually, the Industrial Fund Regulations require that government agencies, other than those in the Department of Defense, pay statistical costs in addition to the above costs, and in that respect the charter presently provides for an exception to the Regulations.

Other costs which are provided for by allotments of appropriated funds include those for: removal and salvage of plant account items, maintenance of idle plant and equipment, and operation and/or maintenance of activities not engaged in production of goods and services for ordering agencies (air fields, supply depots, cemeteries, reserve fleet vessels, training facilities, public quarters, etc.). All costs of repairs to plant and equipment used in accomplishing the productive work of the shipyard are considered as operating costs and are paid from the industrial fund and reimbursed through the overhead charge to each job order.

The Industrial Fund Handbook for Shipyards has been prepared by the Comptroller of the Navy and is the standard guide for the cost accounting system to be followed. This system is more or less "tailor made" to fit the needs of the shipyards yet it embodies generally accepted commercial funding and accounting practices, including the accrual basis of accounting and double-entry method of bookkeeping. The adoption of journals, ledgers, sales and cash disbursement registers and the other accounts utilized in commercial accounting undoubtedly has been a novelty to the fiscal personnel of the shipyard instituting industrial fund operation. Herein lies one of the major problems involved, that of training in new accounting methods a group of people who have been accustomed to appropriation procedures. The details of the new accounting methods introduced by industrial fund operation are a study within themselves and are beyond the scope of this paper. Suffice it to say that under the old accounting system, the availability of funds in an appropriation or allotment was the major consideration; under the industrial fund, the paramount consideration is the integrity of the project cash account.

The Industrial Fund Handbook requires that each establishment operated under the fund prepare a commercial-type budget annually, covering costs, inventory levels and summaries of the estimated results of operations of the

shipyard. This budget provides the plan of financial action to support the anticipated workload and aids management in holding to that plan. Accurate workload forecasts are even more significant under the industrial fund than under the old method of financing operations - if the integrity of the project cash account is to be safeguarded. In general, forecasting and budget techniques already in use are continued under industrial fund operation. The major changes involved are the application of overhead rates to all productive work and the charging of APA material to all jobs without regard to the appropriation financing the work.

CHAPTER V

EARLY THOUGHTS ON NIF

Any departure, however insignificant, from established procedures and practices will usually encounter great scepticism and be accepted with grave misgivings. The spirit with which new techniques are received always depends largely on how well the idea has been "sold." A recent participant on a television quiz program related that he had disposed of his motion picture holdings when the industry converted over to sound pictures because he could see no success in the new enterprise. He put the one and one-half million dollars into stocks. That was in early 1929. He was overjoyed to win several hundred dollars on the program!

The industrial fund operation was not completely "sold" prior to its being enacted into law, and as a result there were objections to it from some quarters of all military departments. Among the objections voiced against establishing the industrial fund in a shipyard in 1951 were the following:

1. The objective of obtaining truer costs for productive work and services could be attained more easily and economically by revising the existing accounting system. It was felt that costs could be accumulated under the present system in any form desired, that by applying overhead rates and APA costs to all jobs the existing accounting methods would accomplish the same result as the new system and, further, that the Navy's system was "tried and true," not a new and unproven method requiring indoctrination and training of many shipyard employees. It was believed that the estimated cost of \$5,500,000

for installing the industrial fund in eleven naval shipyards would achieve nothing desirable that could not be achieved at a lesser cost.

Undoubtedly these objections were all valid ones. However, the Navy happened to be caught in a "squeeze" in this particular case. The introduction of performance budgeting and the efforts of the Congress to promote better financial management resulted in the necessity for standardizing accounting methods in all military services through the adoption of commercial practices. Actually, the Navy's transition problem was less significant than that of the other services which, in many areas, had to "start from scratch."

2. The industrial fund operation involves lodging charges against one account and then transferring them to another, whereas, under appropriation accounting, charges are lodged directly against the appropriation involved.

3. It was feared by some that any additional appropriation required to meet the needs of working-capital might curtail other Navy funds needed for operating purposes.

4. The Navy's shipbuilding and repair programs might be jeopardized by the full distribution of overhead charges to all work.

5. The change-over to Performance Budgeting was already taking up all of the available time of fiscal personnel in the Bureau and yet they would be the ones responsible for establishing the industrial fund accounting. Introduction of Industrial Fund Budgets would further complicate the budget picture.

6. It would be difficult to distinguish between industrial and non-industrial costs for determination of overhead rates.

7. Operation under the fund would not lend itself to the streamlined methods required during a national emergency when the objective is time rather than economy.

8. The creation of a buyer-seller relationship with resultant competition among the shipyards would be an artificial objective for the following reasons:

a) CNO schedules fleet operations including overhauls and other ship work. To remove this control from top level coordination would mean immediate unbalance of shipyard workload with resultant political implications and efficiency loss.

b) Each ship of the fleet is presently assigned a "home yard," which shipyard normally performs the overhauls of the ship and maintains certain logistic support such as special material and design data. This policy and the morale of ships' personnel would be upset by late changes of the assigned overhauling activity.

9. Institution of the industrial fund operation during the Korean campaign and the defense buildup would be very untimely.

10. Objective of promoting cross-servicing between departments was not a valid reason for installation of the system since there would be no actual change from existing practices.

11. Accrual accounting methods, following commercial practice, would produce only one record of any significance to shipyard financial control, that of accrued leave.

12. Appropriation accounting and budgeting would have to be continued for certain funds even after a shipyard adopted industrial fund accounting.

Obviously, some of the above stated objections to the industrial fund are invalid or else of such nature as to create only a temporary inconvenience to the activities involved. Some of them, on the other hand, are quite valid. However, as stated earlier, the Congress' intention of promoting economy and efficiency involved requiring that the services adopt methods which would

provide cost controls. It is only reasonable that a standard system be employed for all military departments. These objections have been included to show some of the prevailing thoughts on the subject just prior to the introduction of industrial fund financing in shipyards.

CHAPTER VI

ADOPTION OF NIF BY SHIPYARDS

By direction of the Comptroller of the Secretary of Defense, representative activities were to be converted to the industrial fund on a target date of 31 December 1950.¹ The shipyard designated for the pilot installation was the Philadelphia Naval Shipyard. Due to the extensive survey required, along with the numerous reporting forms to be prepared, the transition date was postponed and the yard commenced operations under industrial fund financing on 14 April 1951. Since that date the shipyards at Norfolk and Charleston have adopted industrial fund financing. All other yards are scheduled to go under the fund by the end of fiscal year 1955.

In spite of the many objections to the industrial fund, advantages are being realized and these should increase after more experience has been gained and the problem areas have been eliminated. Some of these advantages are stated below:

1. There are indications, and actual cases, that a greater cost consciousness on the part of the customer is developing. Although this may never apply in the case of active fleet overhauls, there is no reason why it should not be utilized in choosing low cost yards for such work as manufacturing for the various stocking offices and for repairs to stock material.

¹ ASTSECDEF (Comptroller) Memo dtd 27 October 1950 to Secretaries of Army, Navy and Air Force.

2. A greater competition among yards will develop as more experience is gained in operation under the industrial fund. Various elements of costs will be more readily comparable with other yards and corrective action may be concentrated in high areas.

3. An accrued leave account is established and carried as a liability. In event the shipyard should be inactivated or placed in a reduced status, funds are available immediately to pay all annual leave due employees. Greater flexibility is thereby afforded. Accrual accounting enables the shipyard to match costs against revenue for any period and eliminates the distortion resulting from the old cash basis of accounting.

4. The system will afford the possibility of improving work measurement standards by producing more cost elements for which standards may be adopted.

5. A truer cost for each job is obtained through the charging of overhead, all material involved and certain indirect labor formerly charged to the shipyards maintenance and operation funds.

6. The possibility of "over obligation," as occurred under appropriation accounting, is eliminated since charges are lodged directly against the NIF.

7. Improved inventory control will result from capitalization of all material within the shops. Non-standard material may be carried in shop stores and shop "Kitties" will be reduced.

8. More accurate timekeeping methods have been developed at Philadelphia as a result of the new cost accounting system.

9. Better job order control and costing will result through such measures as:

- a) More accurate pricing of stub requisitions.
- b) Promptness in closing job orders.
- c) Elimination of delayed material cost adjustments.

- d) Elimination of issuance of "free" material.
- e) Reporting and identifying "Time Allowed" and "Damage and Waste."

10. The shipyard may undertake advance work without having to await the receipt of a fund allotment.

11. Industrial Fund Budgets follow the performance concept, focusing attention on cost centers and functions performed. Comparison of "budget" with "actual" affords the necessary timely controls required by management.

A possible refinement to industrial fund accounting lies in capitalization of fixed assets rather than the purely statistical accounting to which they are presently subjected by industrial fund operation. The major objection to this extension would be that shipyard customers would pay for depreciation of equipment and facilities not actually employed in productive work. Possibly this defect could be overcome by excluding those idle facilities not employed. However, the advantages to be gained by capitalizing fixed assets is not readily apparent, and it is doubted that such a change in the present accounting methods (NIF) will be made.

CHAPTER VII

CONCLUSION

The comment has been made that Title IV has not been fully effective in promoting economy and efficiency inasmuch as no actual dollar savings have resulted at those activities where its provisions have been instituted. With a history of only twenty months of operation, industrial fund financing at naval shipyards has not as yet received sufficient trial to prove its merits and potentialities. Undoubtedly, it will never be possible to display a dollar figure representing savings resulting from industrial fund operation. Economy will be realized only after the cost consciousness developed in top management is instilled down through the supervisory level into the mechanic on the job. The savings, in turn, will be reflected in the cost of performing the work.

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